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PAGE 1 OF: 32
TO: USPTO
FACSIMILE NO.: (571) 273-8300
FROM: GARY P. OAKESON
TRANSMITTED BY: BRENDA WISEMAN
OUR DOCKET NO.: 10004809-1
FOR: DURABLE PRINTED COMPOSITE MATERIALS AND ASSOCIATED METHODS
SUBJECT: APPEAL BRIEF

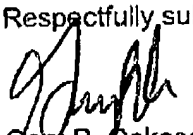
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir/Madam:

Attached please find an Appeal Brief for Docket No. 10004809-1, Application No. 10/783,610.

Thank you. We await your confirmation of receipt.

Respectfully submitted,



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HEWLETT-PACKARD COMPANY
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P.O. Box 272400
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PATENT APPLICATION

ATTORNEY DOCKET NO. 10004809-1

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Vladek Kasperchik

Application No.: 10/783,610

Filing Date: 02/19/2004

Confirmation No.: 1622

Examiner: Betelhem Shewareged

Group Art Unit: 1794

Title: Durable Printed Composite Materials And Associated Methods

Mail Stop Appeal Brief-Patents
Commissioner For Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on July 15, 2008.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) $500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

[ ] (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

[ ] 1st Month $120	[ ] 2nd Month $450	[ ] 3rd Month $1020	[ ] 4th Month $1590

[ ] The extension fee has already been filed in this application.

[X] (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of $ 500. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

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Date of facsimile: 09/04/2008
Typed Name: Brenda Wiseman
Signature: Brenda Wiseman

Respectfully submitted,
Vladek Kasperchik
By _____
Gary P. Oakeson
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Rev 10/06n (Apllied)

DUPLICATE

HEWLETT-PACKARD COMPANY
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PATENT APPLICATION

ATTORNEY DOCKET NO. 10004809-1

IN THE
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Date of facsimile: 09/04/2008
Typed Name: Brenda Wideman
Signature: Brenda Wideman

Respectfully submitted,
Vladek Kasperchik
By _____
Gary P. Oakeson
Attorney/Agent for Applicant(s)
Reg No.: 44266
Date: 09/04/2008
Telephone: (801) 566-6633

Rev 10/06 (ApBrief)

Docket No. 10004809-1
Application No. 10/783,610

1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ART UNIT:	1794
EXAMINER:	Betelhem Shewareged
APPLICANT:	Vladek Kasperchik
SERIAL NO.:	10/783,610
FILED:	02/19/04
CONFRM. NO.:	1622
DOCKET NO.:	10004809-1
FOR:	DURABLE PRINTED COMPOSITE MATERIALS AND ASSOCIATED METHODS

CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8

DATE OF DEPOSIT: 09/04/2008

I hereby certify that this paper or fee (along with any paper or fee referred to as being attached or enclosed) is being facsimile transmitted to the USPTO or being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Brenda Wiseman

Brenda Wiseman

APPELLANTS' APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Mail Stop Appeal Brief -- Patents

Sir:

Appellants submit this Appeal Brief in connection with their appeal from the final rejection of the Patent Office, mailed March 18, 2008, in the above-identified application. A Notice of Appeal was filed on July 15, 2008.

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I. REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. RELATED APPEALS AND INTERFERENCES

Appellants and Appellants' legal representatives know of no other appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-5, 7-14 and 36-49 are presently pending. Claim 6 has been canceled. Claims 15-35 have been withdrawn from consideration as being drawn to a non-elected invention. The claims on appeal in this application are claims 1-5, 7-14 and 36-49.

IV. STATUS OF AMENDMENTS

No amendments to pending claims 1-5, 7-14 and 36-49 have been made since the office action mailed on March 18, 2008, which was the final rejection of the pending claims.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention provides a durable printed composite material (page 2, lines 6-7; page 5, line 14), comprising:

a printable layer having a viewing surface and a printed surface (page 5, lines 14-19), wherein an image is printed on the printed surface (page 6, lines 19-21), said printable layer comprising a transparent or translucent material (page 5, lines 15-16), said printable layer including an ink-receiving layer (page 5, line 30);

a metallic layer having an inner surface and an outer surface (page 2, lines 25-27), said inner surface of said metallic layer providing a reflective sheen background (page 7, lines 7-10), said reflective sheen background being visible through at least a portion of said printable layer (page 2, lines 10-11; page 20, lines 12-13); and

an adhesive layer adhered between the inner surface and the printed surface such that at least a portion of said metallic layer is visible through the printable layer (page 2, lines 8-11)

wherein at least one of the layers includes an additive configured for one of light stabilization, liquid resistance, or vapor resistance (page 8, lines 15-18).

Additionally, the present invention provides a durable printed flexible composite material (page 2, lines 6-7; page 5, line 14; page 12, lines 1-2), comprising:

a printable layer having a viewing surface and a printed surface (page 5, lines 14-19), wherein an image is printed on the printed surface (page 6, lines 19-21), said printable layer comprising a transparent or translucent material (page 5, lines 15-16);

a metallic foil layer having an inner surface and an outer surface (page 2, lines 25-27; page 7, lines 20-21), said inner surface of said metallic foil layer providing a reflective sheen background (page 7, lines 7-10), said reflective sheen background being visible through at least a portion of said printable layer (page 2, lines 10-11; page 20, lines 12-13);

an adhesive layer adhered between the inner surface and the printed surface (page 2, lines 8-11; page 9, lines 7-8); and

a protective layer adhered to the outer surface of the metallic layer (page 7, lines 23-25);

wherein the durable printed composite material has a thickness of from about 50 μm to about 250 μm (page 12, lines 3-5).

Further, the present invention provides a durable printed composite material (page 2, lines 6-7; page 5, line 14), comprising:

a printable layer having a viewing surface and a printed surface (page 5, lines 14-19), wherein an image is printed on the printed surface (page 2, lines 6-8; page 6, lines 19-21), said printable layer comprising a transparent or translucent material (page 5, lines 15-16);

a metallic layer having an inner surface and an outer surface (page 2, lines 25-27), said inner surface of said metallic layer providing a reflective sheen background (page 7, lines 7-10), said reflective sheen background being visible through at least a portion of said printable layer (page 2, lines 10-11; page 20, lines 12-13), and said metallic layer being image-free (page 7, lines 1-20; FIGs. 1-2); and

an adhesive layer adhered between the inner surface and the printed surface such that at least a portion of said metallic layer is visible through the printable layer (page 2, lines 8-11 and 19-21; page 9, lines 7-8).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues presented for review are (1) whether claims 1-5, 7-13 and 49 are unpatentable under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,849,149 B2 to Otaki et al. (hereinafter "Otaki") in view of U.S. Patent No. 4,893,887 to Coates (hereinafter "Coates"); (2) whether claim 14 is unpatentable under 35 U.S.C. 103(a) as being obvious over Otaki in view of Coates; and (3) whether claims 36-48 are unpatentable under 35 U.S.C. 103(a) as being obvious over Otaki in view of Coates.

VII. ARGUMENT

A. Appellants' invention

Appellants' claimed invention is outlined in independent claims 1, 14 and 36, which respectively read as follows:

"[a] durable printed composite material, comprising:

a) a printable layer having a viewing surface and a printed surface, wherein an image is printed on the printed surface, said printable layer comprising a transparent or translucent material, said printable layer including an ink-receiving layer;

b) a metallic layer having an inner surface and an outer surface, said inner surface of said metallic layer providing a reflective sheen background, said reflective sheen background being visible through at least a portion of said printable layer; and

c) an adhesive layer adhered between the inner surface and the printed surface such that at least a portion of said metallic layer is visible through the printable layer

wherein at least one of the layers includes an additive configured for one of light stabilization, liquid resistance, or vapor resistance" and

"[a] durable printed flexible composite material, comprising:

a) a printable layer having a viewing surface and a printed surface, wherein an image is printed on the printed surface, said printable layer comprising a transparent or translucent material;

b) a metallic foil layer having an inner surface and an outer surface, said inner surface of said metallic foil layer providing a reflective sheen background, said reflective sheen background being visible through at least a portion of said printable layer;

c) an adhesive layer adhered between the inner surface and the printed surface; and

d) a protective layer adhered to the outer surface of the metallic layer;

wherein the durable printed composite material has a thickness of from about 50 μm to about 250 μm" and

"[a] durable printed composite material, comprising:

a) a printable layer having a viewing surface and a printed surface, wherein an image is printed on the printed surface, said printable layer comprising a transparent or translucent material;

b) a metallic layer having an inner surface and an outer surface, said inner surface of said metallic layer providing a reflective sheen background, said reflective sheen background being visible through at least a portion of said printable layer, and said metallic layer being image-free; and

c) an adhesive layer adhered between the inner surface and the printed surface such that at least a portion of said metallic layer is visible through the printable layer.

B. The Asserted References

1. The Otaki Reference

Otaki discloses a hologram laminate and a hologram label (Abstract). More specifically, Otaki discloses a hologram laminate comprising: "a substrate; a hologram layer provided on the substrate through a first pressure sensitive adhesive layer; and a transparent film provided on the hologram layer through a second pressure sensitive adhesive layer. (Abstract and col. 4, lines 55-60). The hologram of Otaki may be either a volume hologram or a relief hologram (col. 15, lines 6-13). Otaki does not teach a metallic foil. The protective film of Otaki may be colored and transparent (col. 35, lines 12-13).

2. The Coates Reference

Coates discloses a metallic hologram comprising an image formed and mounted on a substrate using an adhesive (Abstract and col. 1, lines 31-32). The metallic hologram of Coates comprises a thin layer of metal, which is always formed and mounted on a substrate (Abstract; col. 2, lines 8-10, 18-22, and 27-31). The metallic reflecting hologram of Coates is prepared by use of a die having a holographic image thereon (col. 1, lines 28-32). As such, Coates does not teach any embodiment wherein the metallic hologram or metallic layer is not imaged or embossed. Id. Coates further discloses that the metallic layer is necessarily very thin and is fabricated or deposited on a die or substrate which is then used for transferring purposes (col. 2, lines 5-11 and lines 42-49). Coates further discloses

methods, such as vacuum metallization, sputtering and vacuum depositing the thin layer of metal directly on the die (col. 2, lines 6-7, 15-17, and 27-29).

C. Rejections Under 35 U.S.C. § 103(a)

1. Requirements for Prima Facie Obviousness

The Examiner has rejected claims 1-5, 7-13 and 49 under § 103(a) as being *prima facie* obvious over Otaki in view of Coates. In addition, the Examiner has rejected claim 14 and claims 36-48 as being *prima facie* obvious over Otaki in view of Coates. The Patent and Trademark Office (PTO), through the Examiner, has the burden of establishing a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1998). To satisfy this burden, the PTO must meet the criteria set out in M.P.E.P. § 706.02(j):

> [T]hree basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Moreover, the obviousness analysis must comply with the statutory scheme as explained by the Supreme Court in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966), namely, consideration must be given to: (1) the scope and content of the prior art, (2) the differences between the prior art and the claimed invention, (3) the level of ordinary skill in the pertinent art, and (4) additional evidence, which may serve as indicia of non-obviousness.

An excellent summary of how the prior art must be considered to make a case of *prima facie* obviousness is contained in *In re Ehrreich et al.*, 220 U.S.P.Q. 504, 509-511 (CCPA 1979). There the court states that a reference must not be considered in a vacuum, but against the background of the other references of record. It is stated that the question of a § 103 case is what the reference(s) would "collectively suggest" to one of ordinary skill in

the art. However, the court specifically cautioned that the Examiner must consider the entirety of the disclosure made by the reference and avoid combining them indiscriminately.

In finding that the "subject matter as a whole" would not have been obvious in *Ehrreich* the court concluded:

> "Thus, we are directed to no combination of prior art references which would have rendered the claimed subject matter as a whole obvious to one of ordinary skill in the art at the time the invention was made. The PTO has not shown the existence of all the claimed limitations in the prior art or any suggestion leading to their combination in the manner claimed by applicants." (underlining added)

It has been widely recognized that virtually every invention is a combination of elements and that most, if not all, of these will be found somewhere in an examination of the prior art, This reasoning lead the court, in *Connell v. Sears, Roebuck & Co.*, 220 U.S.P.Q. 193, 199 (Fed. Cir. 1983) to state:

> "...it is common to find elements or features somewhere in the prior art. Moreover, most if not all elements perform their ordained and expected function. The test is whether the claimed invention as a whole, in light of all the teachings of the references in their entireties, would have been obvious to one of ordinary skill in the art at the time the invention was made." (underlining added)

With the above background in mind, Appellants contend that the Examiner has not met this burden with respect to any of the claims on appeal. Particularly, Appellants submit that the PTO has failed to show that each and every element of the claimed invention is contained in a single reference or a combination of references. Appellants now turn to a discussion of the specific rejection at issue, and the references on which they are based.

2. The Rejection of Claims 1-5, 7-13 and 49 over Otaki in view of Coates

Of this particular set of claims, Claim 1 is independent and the remaining claims all depend from and are narrower in scope than claim 1. Accordingly, Applicant directs the following remarks to Claim 1 and any and all claims depending therefrom.

Independent Claim 1 requires a durable printed composite material as set forth above, wherein at least one of the layers includes an additive configured for one of light stabilization, liquid resistance, or vapor resistance. The Examiner makes two distinct rejections concerning this language. Each rejection is discussed individually below.

First, in the Advisory Action dated June 19, 2008, the Examiner asserts that "the limitation 'configured for one of light stabilization, liquid resistance, or vapor resistance' is drawn to intended use, and it has been held that a recitation with respect to the manner in which a claimed article is intended to be employed does not differentiate the claimed article from a prior article satisfying the claimed structural limitations." In addition, the Examiner asserts that "the claimed invention does not expressly recite a light stabilizer additive, a liquid resistance additive or vapor resistant additive."

Applicant disagrees with the Examiner on this issue. A claimed invention should be read in light of the specification. The invention of claim 1 recites "... an additive configured for one of light stabilization, liquid resistance or vapor resistance." Applicant's specification defines what is meant by "an additive configured for one of light stabilization, liquid resistance or vapor resistance," and the specification even lists specific light stabilization additives, liquid resistance additives and vapor resistance additives that fit within these categories. Accordingly, the Examiner's argument that the claimed invention does not expressly recite a light stabilizer additive, a liquid resistance additive or vapor resistant additive cannot stand.

Second, the Examiner alleges that Otaki discloses a colored transparent film 203 (col. 35, line 12), and that the colorant used to make this layer colored is equivalent to the claimed additives configured for light stabilization, liquid resistance and/or vapor resistance. See March 18, 2008 Office Action, page 2, paragraph 4. In response, Applicant has argued and maintains the position that the colorant of Otaki is not equivalent to the claimed additives. There is nothing in Otaki to teach or suggest that the colorant is also an additive configured for light stabilization, liquid resistance or vapor resistance. Despite there being *nothing* in Otaki that teaches or suggests that the colorant is also an additive consistent with those claimed in Claim 1, the Examiner argues the colorant of Otaki "*inherently* absorbs light having some wavelength, and by absorbing the light with

some wavelength the product is protected from long term degradation from exposure to light." See March 18, 2008 Office Action, page 4, paragraph 7 (emphasis added).

Applicant disagrees with the Examiner's analysis and ultimate conclusion. The Examiner has based the rejection on a non-disclosed, *inherent* characteristic of the colorant in Otaki. Pursuant to MPEP §2112(IV), the Examiner must provide rationale or evidence tending to show inherency. In addition, the evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *In re Robertson,* 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

The Examiner has not provided evidence in this case to show that the colorant of Otaki inherently "stabilizes" a composition when exposed to light, "resists liquid" or "resists vapor." Even if a colorant inherently absorbs light, it does not follow that the absorption of light inherently stabilizes a composition from light exposure, resists liquid or resists vapor. The Examiner has stated that "the colorant of Otaki inherently absorbs light" and that by absorbing light the "product is protected from long term degradation from exposure to light." See June 19, 2008 Advisory Action. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic. MPEP §2112(IV) citing *In re Rijckaert,* 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). Thus, even if the colorant of Otaki might stabilize, resist liquid or resist vapor, it is nevertheless insufficient to support a rejection under 103(a) since these characteristics are not necessarily present in colorants. See *In re Robertson,* 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). It should be emphasized that there are thousands upon thousands of colorants, and each colorant is chemically different. Since the Examiner has based the rejection of Claim 1 on inherency without providing evidence tending to show inherency of the missing descriptive matter, this rejection cannot stand and should be withdrawn.

As a further matter, the colorant of Otaki is not equivalent to the claimed additives configured for one of light stabilization, liquid resistance or vapor resistance. There is nothing in Otaki to teach or suggest that the colorant is also an additive configured for any of the claimed functions. Moreover, the present application distinguishes between

different types of additives. For example, on page 8 beginning on line 15, the specification lists various types of additives including colorants, which are separate and apart from light stabilizers, liquid resistance additives and vapor resistance additives. The fact that these additives are listed individually indicates that they are separate and distinct additives, and that one of the additives does not necessarily possess the same characteristics as the other additives. In fact, it is clear from the Applicant's specification that colorants *per se* would not qualify as this claim element, further distinguishing the claimed invention over the prior art. In other words, the Applicants have defined light stabilizers, liquid resistance additives and vapor resistance additives separately than their discussion of colorants. The Applicants' contemplated the use of colorants as additives separate from light stabilizers. Thus, a plain reading of the specification undermines the very argument made by the Examiner that a colorant should be counted as a light stabilizer.

More specifically, light stabilization additives are not defined in the present specification as colorants, but rather are described as materials such as hindered amines, UV absorbers, etc. Liquid resistance additives decrease the wetability of the surface to specific liquids, and vapor resistance additives include acrylonitrile copolymers and vinylidene chloride copolymers. None of these elements are colorants. Moreover, a colorant does not inherently stabilize against light, resist liquid or resist vapor *per se*. Accordingly, Otaki does not teach or suggest an additive configured for one of light stabilization, liquid resistance, or vapor resistance, as defined by the Applicant.

Coates does not make up for this deficiency. In fact, Coates does not teach or suggest adding a colorant to the metal hologram, as is acknowledged by the Examiner on Page 3, paragraph 6 in the August 31, 2007 Office Action. More importantly, Coates does not teach or suggest adding any additive to the layers of the hologram, let alone an additive configured for one of light stabilization, liquid resistance, or vapor resistance. Accordingly, neither Otaki nor Coates alone or in combination teach or suggest the claimed limitation of an additive configured for light stabilization, liquid resistance, and/or vapor resistance.

3. The Rejection of Claim 14 over Otaki in view of Coates

A *prima facie* case of obviousness has not been presented for claim 14 for lack of teaching of each and every element of the claim. Specifically, neither Otaki nor Coates teach a metallic foil. A metallic foil, as commonly known, is an independent, thin sheet of self-supporting metal that is separate and distinct from the other layers (Application page 7, lines 17-18). Claim 14 specifically claims a metallic foil layer. Foils should not be confused with metallic layers that are deposited on substrates, and which are not independent or self-supporting.

Otaki teaches only a hologram, and therefore, does not teach a metallic foil. Coates teaches metallic holograms comprising a thin layer of metal, which is always formed and mounted on a substrate (Abstract). Unlike the claimed foil, the metallic layer of Coates is necessarily very thin and is fabricated or deposited on a die or substrate which is then used for transferring purposes (See col. 2, lines 6-11). The methods of Coates, such as vacuum metallization, sputtering and vacuum depositing the thin layer of metal, would not create a foil (col. 2, lines 6-7, 15-17, and 27-29). The metal layers of Coates are not layers of foil, i.e., independent of the other layers and self-supporting metal, but rather are always formed and mounted on a substrate (Abstract, and col. 2, lines 8-10, 18-22, and 29-31).

The Examiner argues that there is nothing in Coates that suggests that the metal layer of Coates is not self-supporting after it has been formed. Respectfully, Applicant disagrees with the Examiner on this point. The fact that the metal layer of Coates is always formed and mounted on a substrate is evidence that it is not independent from the substrate and is also evidence that it is either too thin or not cohesive enough to support itself, and thereby does not qualify as a metallic foil. In addition, Coates expressly teaches extreme thinness of the metal hologram, and even states that:

> "[T]his thinness is necessary... because the metal surface which was not in contact with the die surface will ultimately be the reflective holographic surface; and if the metal is much thicker, it will not adequately reproduce the detailed topology of the holographic master from which the die was fabricated." (col. 2, lines 42-49).

Contrary to the Examiner's position, Applicant submits that the facts discussed above do suggest that the metallic layer of Coates is not self-supporting after it has been formed.

The Examiner argues that Coates is combined with Otaki to teach the use of a metallic hologram layer and not to teach the thickness of the hologram layer. Regardless of the purpose in combination, neither Coates nor Otaki teach a metallic foil. To reiterate, a metal foil is a layer that is independent and self-supporting. The procedures and methods taught in Coates necessarily prevent formation of a metal or holographic layer that is either independent or self-supporting. As such, Coates does not teach a metal foil.

As neither Coates nor Otaki teach a metallic foil layer, they do not teach each and every element either alone or in combination. Therefore, withdrawal of the rejection is requested.

4. The Rejection of Claims 36-48 over Otaki in view of Coates

A *prima facie* case of obviousness has not been presented for claims 36-48 for lack of teaching each and every element of the claim. Specifically, neither Otaki nor Coates teaches an image-free metallic layer, as is required in independent claim 36. In fact, Otaki does not even teach a metal hologram, as is acknowledged by the Examiner on Page 7 of the March 18, 2008 Office Action. Accordingly, without a metal hologram, Otaki cannot possibly have an image free metallic layer.

Coates does not make up for this deficiency. The Examiner alleges that the metallic layer of Coates is not imaged or embossed at all times. In response, Applicant submits that Coates does teach a metallic layer, but the metallic layer of Coates is always a metallic hologram. A hologram is generally known and accepted as a type of image, and thus by its very nature a metallic hologram comprises an image. Moreover, Coates expressly teaches an image replicated into a metallic film (col. 1, lines 31-32). Therefore, the metallic layer of Coates is not image-free.

In support of his argument that the metallic layer of Coates is image-free at times, the Examiner references col. 2, lines 5-15 of Coates, which describe one method of fabricating the metal hologram. The method described is that of vacuum depositing a metal layer directly on the die. Despite the Examiner's allegation that there is a point during this process whereat the metallic layer is not imaged or embossed, this physically cannot be the case in view of the following considerations.

Coates expressly teaches in the summary and detailed description (col. 1, line 55-col. 2, line 4) that the metallic reflecting hologram is prepared by use of a die having a holographic image formed in the embossing surface thereof. In all embodiments taught in Coates, the die used in connection with preparing the metallic reflecting hologram comprises an image thereon. The image is the result of a "pattern of raised areas and valleys which are a holograph of the object being holographed" (col. 1, lines 67-68). Thus, the die comprises an image thereon. At the moment that the metal layer is applied to the die, which occurs via vacuum deposition in the embodiment cited by the Examiner, the metal layer takes the holographic image of the die. As such, Coates does not teach any embodiment wherein the metallic layer is not imaged or embossed.

As neither Coates nor Otaki teach an image-free metallic layer, they do not teach each and every element either alone or in combination. Therefore, withdrawal of the rejection is requested.

D. Conclusion

Appellants respectfully submit that the claims on appeal as set forth in the Appendix are patentably distinct from the asserted prior art references. Particularly, the present claims are not obvious over Otaki in view of Coates. The combination of Otaki and Coates does not teach each and every element of the presently claimed invention within the meaning of 35 U.S.C. § 103(a). For this reason, Appellants respectfully requests that the Board of Appeals reverse the rejection and remand the case to the Examiner for allowance.

Dated this 4th day of September, 2008.

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VIII. CLAIMS APPENDIX

1. (previously presented) A durable printed composite material, comprising:

a) a printable layer having a viewing surface and a printed surface, wherein an image is printed on the printed surface, said printable layer comprising a transparent or translucent material, said printable layer including an ink-receiving layer;

b) a metallic layer having an inner surface and an outer surface, said inner surface of said metallic layer providing a reflective sheen background, said reflective sheen background being visible through at least a portion of said printable layer; and

c) an adhesive layer adhered between the inner surface and the printed surface such that at least a portion of said metallic layer is visible through the printable layer

wherein at least one of the layers includes an additive configured for one of light stabilization, liquid resistance, or vapor resistance.

2. (original) The material of claim 1, wherein said metallic layer comprises a reflective metal selected from the group consisting of aluminum, silver, indium, zinc, chromium, nickel, gallium, cadmium, palladium, molybdenum, gold, copper, rhodium, niobium and composites or alloys thereof.

3. (original) The material of claim 2, wherein said metallic layer comprises aluminum.

4. (original) The material of claim 1, wherein said metallic layer further comprises a colorant.

5. (original) The material of claim 1, wherein said metallic layer is a metal foil having a thickness of from about 0.01 μm to about 5 μm.

6. (cancelled).

7. (original) The material of claim 1, wherein the printable layer is transparent.

8. (original) The material of claim 7, wherein the printable layer is polyethylene terephthalate.

9. (original) The material of claim 1, further comprising a protective layer bonded to the outer surface of the metallic layer.

10. (original) The material of claim 9, wherein the protective layer comprises a polymer selected from the group consisting of acrylic, epoxy, and mixtures thereof.

11. (original) The material of claim 9, wherein the protective layer has a thickness of from about 0.5 μm to about 100 μm.

12. (original) The material of claim 1, wherein the durable printed composite material has a thickness of from about 50 μm to about 250 μm.

13. (original) The material of claim 1, wherein the durable printed composite material is flexible.

14. (previously presented) A durable printed flexible composite material, comprising:

a) a printable layer having a viewing surface and a printed surface, wherein an image is printed on the printed surface, said printable layer comprising a transparent or translucent material;

b) a metallic foil layer having an inner surface and an outer surface, said inner surface of said metallic foil layer providing a reflective sheen background, said reflective sheen background being visible through at least a portion of said printable layer;

c) an adhesive layer adhered between the inner surface and the printed surface; and

d) a protective layer adhered to the outer surface of the metallic layer;

wherein the durable printed composite material has a thickness of from about 50 μm to about 250 μm.

15. (withdrawn) A method of forming a durable printed composite material, comprising steps of:

a) reverse printing an image on a printable layer to form a printed surface, said printable layer comprising a transparent or translucent material;

b) providing a metallic layer having an inner surface and an outer surface;

c) adhering the printed surface to the inner surface of the metallic layer; and

d) applying heat and pressure to the metallic layer,

wherein said inner surface of the metallic layer is at least partially visible through the printable layer.

16. (withdrawn) The method of claim 15, wherein the step of reverse printing is accomplished by a printing technique selected from the group consisting of ink-jet, laser, electrostatic, offset, gravure, and liquid electrophotography.

17. (withdrawn) The method of claim 16, wherein the step of reverse printing is accomplished by ink-jet or laser printing.

18. (withdrawn) The method of claim 15, wherein heat and pressure is applied using a heated roller.

19. (withdrawn) The method of claim 15, wherein the metallic layer is a metal foil comprising a metal selected from the group consisting of aluminum, silver, indium, zinc, chromium, nickel, gallium, cadmium, palladium, molybdenum, gold, copper, rhodium, niobium and composites or alloys thereof.

20. (withdrawn) The method of claim 19, wherein the metal foil is aluminum.

21. (withdrawn) The method of claim 15, wherein the metallic layer further comprises a colorant.

22. (withdrawn) The method of claim 15, wherein the printable layer is transparent.

23. (withdrawn) The method of claim 15, further comprising a protective layer bonded to the outer surface of the metallic layer.

24. (withdrawn) A system for forming a durable printed composite material, comprising:

a) a printable layer comprising a transparent or translucent material, said printable layer including a printable surface configured for receiving a printed image; and

b) a reflective metallic layer having an inner surface and an outer surface, said inner surface being configured for adhering to the printable surface.

25. (withdrawn) The system pf claim 24, further comprising a printer configured for reverse printing an image on the printable surface.

26. (withdrawn) The system of claim 25, further comprising a contacting mechanism configured for receiving said printable layer and said reflective metallic layer and applying heat and pressure sufficient to adhere the inner surface of the reflective metallic layer to the printable surface of the printable layer.

27. (withdrawn) The system of claim 26, wherein the printer and contacting mechanism are integrated as a single unit.

28. (withdrawn) The system of claim 26, wherein said contacting mechanism includes a heating element selected from the group consisting of a heated roller, a ceramic heater element, and thermal printhead elements.

29. (withdrawn) The system of claim 26, further comprising a preheater configured for heating at least the reflective metallic layer, said preheater configured to be used prior to the contacting mechanism.

30. (withdrawn) The system of claim 26, further comprising a dryer configured for drying the image prior to applying heat and pressure.

31. (withdrawn) The system of claim 24, wherein said reflective metallic layer is a metallized thermal transfer overcoat having a protective layer bonded to the outer surface of the metallic layer.

32. (withdrawn) The system of claim 31, wherein said metallic layer comprises a metal selected from the group consisting of aluminum, silver, indium, zinc, chromium, nickel, gallium, cadmium, palladium, molybdenum, gold, copper, rhodium, niobium and composites or alloys thereof.

33. (withdrawn) The system of claim 32, wherein the metallic layer comprises aluminum.

34. (withdrawn) The system of claim 24, wherein the durable printed composite material, once formed, has a thickness of from about 50 μm to about 250 μm.

35. (withdrawn) The system of claim 24, wherein the durable printed composite material, once formed, is flexible.

36. (previously presented) A durable printed composite material, comprising:

a) a printable layer having a viewing surface and a printed surface, wherein an image is printed on the printed surface, said printable layer comprising a transparent or translucent material;

b) a metallic layer having an inner surface and an outer surface, said inner surface of said metallic layer providing a reflective sheen background, said reflective sheen background being visible through at least a portion of said printable layer, and said metallic layer being image-free; and

c) an adhesive layer adhered between the inner surface and the printed surface such that at least a portion of said metallic layer is visible through the printable layer.

37. (previously presented) The material of claim 36, wherein said metallic layer comprises a reflective metal selected from the group consisting of aluminum, silver, indium, zinc, chromium, nickel, gallium, cadmium, palladium, molybdenum, gold, copper, rhodium, niobium and composites or alloys thereof.

38. (previously presented) The material of claim 37, wherein said metallic layer comprises aluminum.

39. (previously presented) The material of claim 36, wherein said metallic layer further comprises a colorant.

40. (previously presented) The material of claim 36, wherein said metallic layer is a metal foil having a thickness of from about 0.01 μm to about 5 μm.

41. (previously presented) The material of claim 36, wherein the printable layer comprises a member selected from the group consisting of polyesters, cellulose esters, polyamides, polycarbonates, polyimides, polyolefins, polysulfonamides, and composites or mixtures thereof.

42. (previously presented) The material of claim 36, wherein the printable layer is transparent.

43. (previously presented) The material of claim 42, wherein the printable layer is polyethylene terephthalate.

44. (previously presented) The material of claim 36, further comprising a protective layer bonded to the outer surface of the metallic layer.

45. (previously presented) The material of claim 44, wherein the protective layer comprises a polymer selected from the group consisting of acrylic, epoxy, and mixtures thereof.

46. (previously presented) The material of claim 44, wherein the protective layer has a thickness of from about 0.5 μm to about 100 μm.

47. (previously presented) The material of claim 44, wherein the durable printed composite material has a thickness of from about 50 μm to about 250 μm.

48. (previously presented) The material of claim 36, wherein the durable printed composite material is flexible.

49. (previously presented) The material of claim 1, wherein the printable layer comprises a member selected from the group consisting of polyesters, cellulose esters, polyamides, polycarbonates, polyimides, polyolefins, polysulfonamides, and composites or mixtures thereof.

IX. EVIDENCE APPENDIX

NONE

X. RELATED PROCEEDINGS APPENDIX

NONE